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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,194	06/27/2001	Pradeep Kumar Subrahmanyam	1934.105US1	3918

7590 03/07/2003
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EXAMINER

CAO, ALLEN T

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,194

Applicant(s)

SUBRAHMANYAN, PRADEEP
KUMAR

Examiner

Allen T Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-27 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Claims 9-18 are objected to because of the following informalities: The phrase "An information handling system" in claims 9-18, line 1 should be changed to --a disk drive-- or --an actuator system for a disk drive-- or similar to, to avoid restriction might occurred . Appropriate correction is required.

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 24, 24, 25, 26 have been renumbered 24-27, respectively.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 8-9, 15, 18-21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Berding et al (US. 6,046,889).

Berding et al disclose an actuator assembly 18 for a disk drive having a main body including an axis of rotation 30 (figure 2) and an opening therein (figure 2) positioned around the axis of rotation; at least one actuator arm attached to the main body (figure 2); and a portion of a

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voice coil motor 17 (column 4, line 66 to column 5, line 8) positioned within the opening of the actuator assembly as set forth in claims 1, 3, 8-9, 15, 18-21 and 23.

Regarding claim 2, Berding et al disclose the voice coil motor having two magnets (400, 402) attached to the main body of the actuator arm.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4-7, 10-14, 22, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berding et al.

Berding et al do not disclose such arrangements of the magnets such as “coil ..” in claims 4, 22 and 24; “substantially orthogonal to one another” in claims 5, 10 and 25; “substantially circularly oriented ..” in claims 6, 11 and 26; and “arranged as a Halbach array” in claims 7, 12 and 27.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify or rearrange the magnets of the actuator arm assembly of Berding et al with such arrangement as set forth, supra as an obvious routine arrangement engineering choices in order to improve the rotation characteristics of the actuator assembly.

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Regarding claims 13 and 14, Berding et al do not disclose that the yoke is made of a material capable of absorbing heat (claim 13), or that the yoke is formed of the same material as the base (claim 14).

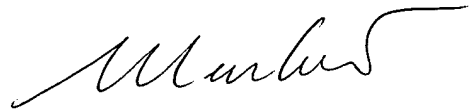
It would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the disc drive apparatus of Berding et al with the yoke that is made of a material capable of absorbing heat, or that the yoke is formed of the same material as the base through an routine lab experimentation and optimization to reduce generated heat in order to improve the rotation characteristics of the actuator system. Additionally, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416 (CCPA 1960).

7. Claims 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takekawa et al (US. 6,498,706 B1), Boutaghou (US. 6,507,463 B1), Koyama (US. 6,449,130 B1), Ottesen et al (US. 5,267,110), Huang et al (US. 6,104,581), Boutaghou et al (US. 5,521,778), Hattori (US. 6,061,208).

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Cao whose telephone number is (703) 305-3796.



Allen Cao

Primary Examiner

AC

February 25, 2003